



# **Regional Judicial Opioid Initiative Appalachian/Midwest**

Action Researcher Report

September 2021



**WAYNE STATE**  
School of Social Work  
Center for Behavioral Health and Justice



**WAYNE STATE**  
School of Social Work  
Center for Behavioral Health and Justice

510 Cass Avenue  
Detroit, Michigan 48202  
[behaviorhealthjustice.wayne.edu](http://behaviorhealthjustice.wayne.edu)

Prepared by Brad Ray PhD, Philip Huynh MPH, Katie Bailey MPA,  
Emily Sights MPH, and Bethany J. Hedden MSW

This report is supported in part by Grant No. 2017-PM-BX-K037 awarded by the Bureau of Justice Assistance (BJA). BJA is a component of the Department of Justice's Office of Justice Programs. Points of view or opinions provided are those of the writers and do not necessarily represent the official position or policies of the U.S. Department of Justice.

# TABLE OF CONTENTS

---

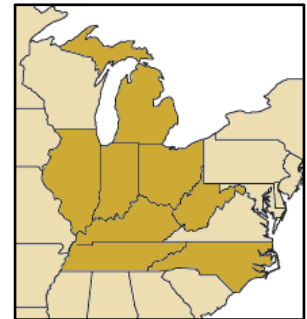
Introduction..... 3  
Allocating Funds to Save Lives (Overdose Prevention)..... 4  
A Roadmap From Lessons Learned..... 10  
Closing Thoughts ..... 17  
References..... 18

# INTRODUCTION

---

In 2016, judges and court stakeholders convened a multi-state summit to discuss strategies the court system could employ to address the rising rates of fatal and non-fatal opioid-related overdoses. This initial work became formalized as the [Regional Judicial Opioid Initiative](#) (RJOI), with funding from the Comprehensive Opioid, Stimulant, and Substance Abuse Program (COSSAP)—originally Comprehensive Opioid Abuse Program (COAP)—through the Bureau of Justice Assistance. Kristina Bryant, National Center for State Courts (NCSC) served as project director and Dr. Brad Ray and his lab served as the “action researcher,” who provided academic detailing around developing aspects of the overdose epidemic, oversaw data integration and dashboard development, and evaluated the pilot programs that would come from the RJOI’s work.

The RJOI includes judicial leaders and court stakeholders from Illinois, Indiana, Kentucky, Michigan, North Carolina, Ohio, Tennessee, and West Virginia and has strived to have an impact over the past five years. Using an evidence-based and data-driven approach, the RJOI worked to standardize information across participating states and transform data into action by identify interstate areas of concern and leveraging existing networks across state boundaries to pilot programs that address substance use disorder. This regional judicial approach was later replicated across the [New England](#) states in 2019.



This report is not intended to chronicle all RJOI or action research team activities but to advocate a bold roadmap forward for the RJOI stakeholders. The overdose crisis is at a critical juncture. Despite billions in funding for opioid use disorder treatment and countless new health and safety collaborations, overdose deaths *continue* to increase. Preliminary data suggest that at least 93,000 people died of an accidental drug overdose in 2020 (1), a 150% increase from when the RJOI began and the highest number of overdose deaths in U.S. history. Yet, because of settlements with pharmaceutical companies, who funneled opioid pain analgesic medications into communities, in addition to proposed increases in funding from the federal government, it appears there will be more resources available to states to address this crisis.

The action research team has charted this path forward by first assessing current opinions toward overdose prevention. To do this, the team reviewed the recent RJOI stakeholder survey results that measured attitudes regarding financial allocations to address the overdose epidemic and compared these responses to evidence-based recommendations from national experts. Reported next are reflections on outcomes from the past five years of collaboration and recommendations for the RJOI leadership and stakeholders to consider as they continue to address this epidemic in their communities. These are courageous proposals based on learnings from the RJOI collaboration, a desire to reduce accidental drug overdose, and a perception that much more needs to be done to achieve this end.

# ALLOCATING FUNDS TO SAVE LIVES (OVERDOSE PREVENTION)

In early 2021, representatives from criminal-legal (courts, community corrections, law enforcement), public health, behavioral health, and social services from the eight Appalachian/Midwest RJOI states completed a survey where they allocated a hypothetical budget of \$100 million over five years to address the overdose epidemic. Based on a [New York Times survey](#) (2), respondents allocated funds to specific programs, policies, and initiatives in four strategic categories—*Demand Reduction/Prevention*, *Harm Reduction*, *Supply Reduction*, and *Treatment Services*—and as they allocated resources in one area, they were forced to adjust the amount allocated in others (Table 1).

Survey respondents were primarily professionals in court or legal services (63.2%), followed by law enforcement or public safety (18.1%), behavioral health (11.7%), public health or healthcare (4.7%), and social services (2.2%) (Figure 1). As illustrated in Figure 2, almost half of the hypothetical budget was allocated to *Treatment Services* with an emphasis on substance use disorder treatment and community corrections, which would reflect expanding treatment courts. More than a quarter of resources was allocated to *Demand Reduction* with emphasis on reintegration after incarceration for people who use drugs. Receiving the least amount of the budget were the *Supply Reduction* and *Harm Reduction* categories. Within *Supply Reduction*, increased funding and training for local police received the greatest endorsement. Receiving equal shares within *Harm Reduction* were drug testing, overdose surveillance, and naloxone expansion programs.

**Table 1:** Strategic Categories for Budget Allocation

## Demand Reduction / Prevention

- Reintegration After Incarceration
- Pain Research
- Community Development
- Public Education

## Supply Reduction

- Police
- Drug Diversion Reduction
- Prescription Drug Monitoring Program

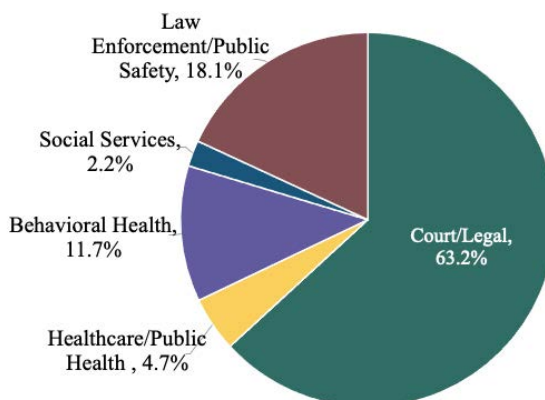
## Harm Reduction

- Overdose Surveillance
- HIV & Hepatitis Prevention
- Supervised Consumption
- Naloxone Expansion
- Drug Testing Technologies
- Syringe Exchange

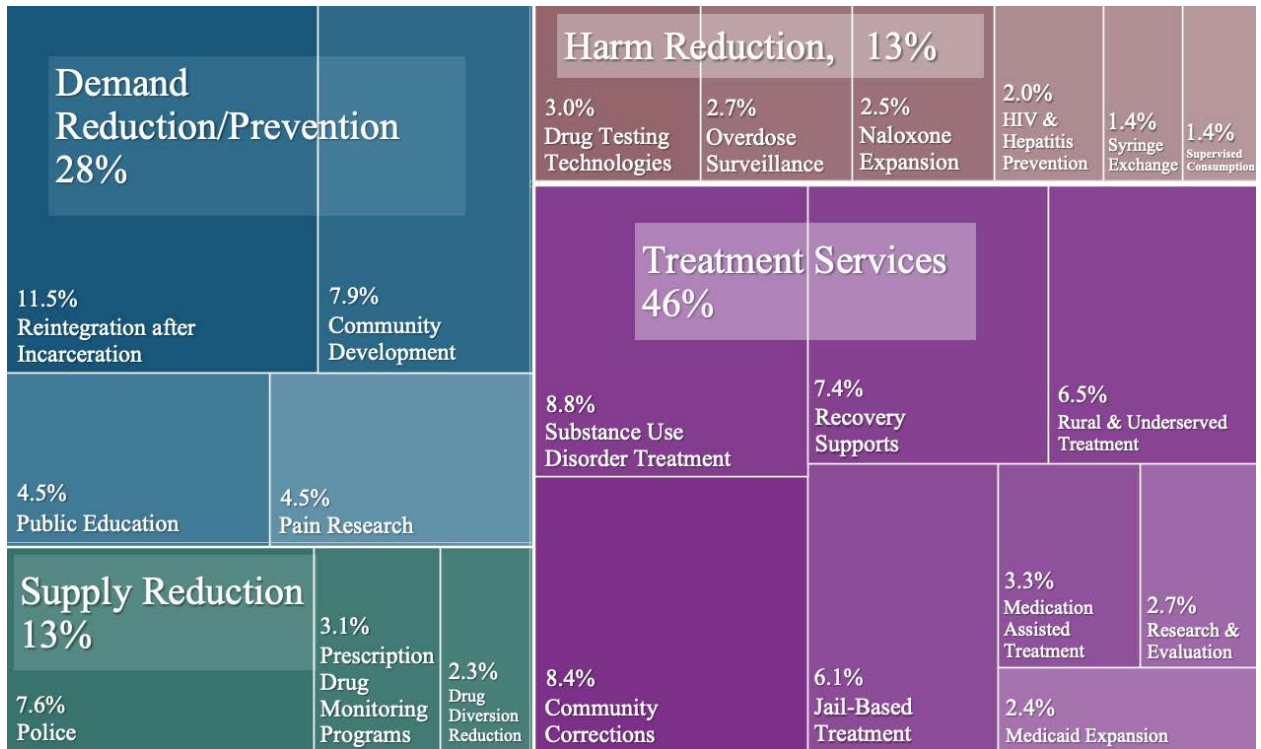
## Treatment

- Community Corrections
- Jail-Based Treatment
- Research & Evaluation
- Medications for Opioid Use Disorder
- Medicaid Expansion
- Substance Use Disorder
- Recovery Supports
- Rural & Underserved

**Figure 1:** Allocation Survey Respondents



**Figure 2: Funding Allocation by Strategic Category**

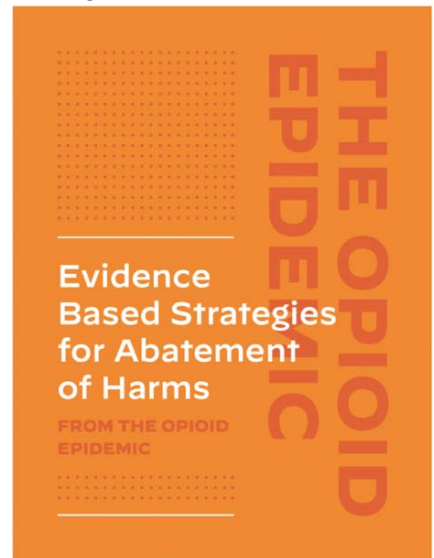


NOTE: Administered to Midwest-Appalachian RJOI members between March 2021 and May 2021. N=1,558

The action research team used the [Evidence Based Strategies for Abatement of Harms](#) report (Figure 3) to contextualize the survey allocation decisions within the current evidence base. The Abatement of Harms report was funded by [Arnold Ventures](#), developed by a group of [national experts](#), and disseminated through the [Legal Action Center](#). The Abatement of Harms report outlines scientific support for each of their recommendations, with policy considerations and guidance on economic impacts, that support state and local officials to make resource allocation decisions for high-impact investments to reduce overdose.

Survey results were aligned with the Abatement of Harms report recommendations regarding the allocation of *Treatment Services* resources to address the overdose crisis; however, the report and survey respondents diverged as to the types of treatments they support and prioritize. The most popular initiative among survey respondents was substance use disorder treatment options such as detox, inpatient/residential, and outpatient. Conversely, in the Abatement of Harms report, medications for opioid use disorder (OUD; e.g., methadone,

**Figure 3: Evidence Based Strategies for Abatement of Harms**



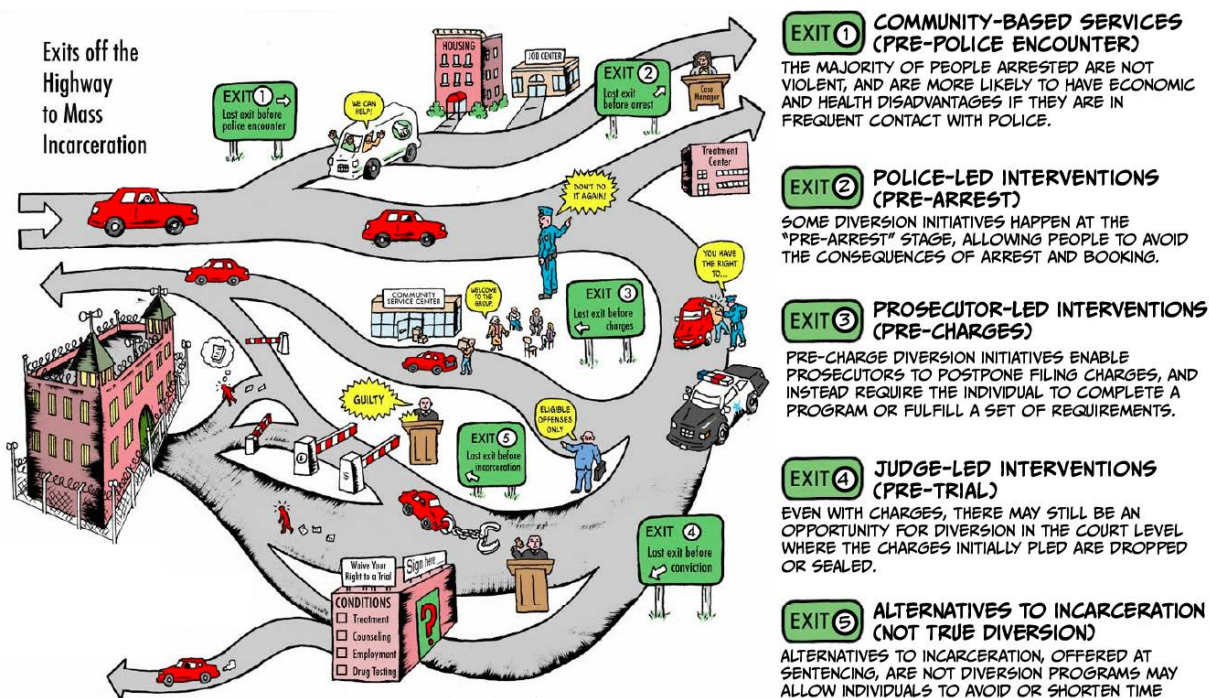


buprenorphine, and extended-release naltrexone) is the top recommendation for OUD treatment, above behavioral therapies and recovery support services, as research suggests effectiveness in reducing drug use and lowering the likelihood of mortality, among other positive outcomes (3–13). Another diverting topic was Medicaid expansion, as survey respondents allocated the least amount of treatment resources here; however, as articulated in the Abatement of Harms report, expansion can increase coverage for high-risk populations and drive resources to populations with a high prevalence of OUD (14–16).

Research demonstrates the need for substance use treatment options and strategies for their implementation within criminal-legal settings. Some studies suggest that providing screening, medications for OUD, and linkage to care for incarcerated persons could prevent thousands of overdose deaths per year (17). Consistent with the Abatement of Harms report recommendations, the RJOI survey respondents allocated a significant portion of *Treatment Services* resources to the expansion of jail-based substance use treatment programs and community corrections. The Abatement of Harms report recommends training law enforcement on substance use disorders, paralleling the RJOI survey respondents endorsement within the *Supply Reduction* category to increase these efforts among local police.

The RJOI survey respondents allocated the majority of resources in the *Demand Reduction* category to reintegration after incarceration efforts. It is sensible for stakeholders from state agencies, many of whom enforce drug laws, to focus on treatment within criminal-legal settings; however, it is exceedingly productive for community stakeholders like those in the RJOI to see

**Figure 4: Exits off the Highway to Mass Incarceration**



Credit to Kevin Pyle; replicated from [Prison Policy Initiative](#)

themselves as part of a broader *treatment ecosystem*. Those working in courts are often situated in the middle of the criminal-legal system—after arrest but before reintegration. Figure 4 illustrates the opportunities for diversion from graver entanglement in the criminal-legal system as exit ramps, with negative consequences accumulating as persons travel further along the criminal-legal system and positive outcomes as they exit. Within a treatment ecosystem framework, the criminal-legal system is impacted by and interacts with other systems and agencies. As such, the ability to deliver evidence-based OUD treatment to persons in the criminal-legal system is often limited by the provision of these services in the surrounding community.

One of the most important roles in any treatment ecosystem are those agencies working directly with persons who use unregulated or illicit drugs, in treatment or not, to prevent them from death and other (individual and public) harms that result from drug use. These persons using drugs are dying at increasing rates, and one of the local agencies most frequently engaged with those at high risk of overdose are syringe service programs. This evidence-based and highly effective public health program has been in existence for more than 40 years and is incredibly well-supported by scientific evidence in their capacity to reduce blood-borne infections (18–23), injection risk behaviors, such as needle sharing (24–28), and increase access to drug treatment (22,29). Further, there is no evidence that syringe service programs increase injection frequency or new users (30,31). Quality syringe service programs have low barriers for participants to acquire tools for safer drug use (such as clean needles) and provide healthcare services, such as HIV and Hepatitis C-testing and treatment referrals (32). Among RJOI survey respondents, syringe service programs were allocated 1% of resources, the lowest allocation of any program. These services are extremely underfunded despite scientific evidence. As new resources become available, syringe service programs should be a priority in many communities with efforts focused on expanding outreach to persons who use drugs at high risk of death and increasing funding to buttress the efforts of organizations that are preventing overdose daily through these relationships.

The action research team recognizes that state courts, which are at the heart of the RJOI, are not situated nor designed to deliver treatment or implement overdose prevention strategies; but the team implores stakeholders to consider how providing resources to these efforts could further impact the overdose crisis. To this end, a summary of the evidence on several additional harm reduction practices that are successful in preventing overdoses are presented below. In the face of a growing number of individuals dying due to overdose, prevention practices should be considered at the community level.

### **Overdose Prevention**

Syringe service programs are based on a harm reduction framework, which refers to a spectrum of strategies aimed at reducing the negative consequences of risky behaviors on individuals and society. When applied to substance use, harm reduction accepts that a continuing level of drug use (both licit and illicit) in society is inevitable and provides strategies for reducing adverse consequences. The illegal drug market is estimated to consistently represent more than 1%



of total global trade, and nearly 80% of those who use drugs illegally do so without problems, such as addiction (33). However, while treatment and recovery remain the key health goal for those with problematic drug use or substance use disorders, once someone dies, this goal is no longer achievable. A harm reduction framework works to ensure individual and community safety; as such, it is particularly effective in reducing overdose if someone is unable to stop using illicit substances.

Expansion of naloxone—the opioid antagonist, also known as Narcan, which can be administered intravenously, intramuscularly, subcutaneously or intranasally—was the *Harm Reduction* strategy with the highest allocation among the RJOI survey respondents. However, this was still far under-resourced in the survey given the scientific evidence on naloxone’s capacity to reduce opioid-related overdose at the individual and community level when readily available (34–38). There are still far too many barriers to access naloxone, including cost and national supply shortages (39–42).

Low-threshold buprenorphine follows a medication-first approach to treatment where medications for OUD are made available to persons with OUD as swiftly as possible, patient goals are prioritized, and a reduction in opioid use, not abstinence, is the primary focus (43,44). In addition, patients receive access to medications for OUD without requiring that they also attend addiction counseling services, although these services are recommended (44). The ultimate goal of this approach is to allow flexible access to medications and reduce barriers, such as through home inductions rather than office visits, same day prescriptions, and the continuation of treatment even during co-use with other substances (45,46).

Good Samaritan laws are a policy-level harm reduction strategy that reduces overdose rates (47,48). Drug-related Good Samaritan laws are statutes that provide legal immunity to those who assist someone experiencing an overdose. The purpose of these laws is to encourage bystanders to aid in the prevention of overdose deaths (i.e., through administration of naloxone or calling emergency medical services) without fear of prosecution. Currently, all but three states in the U.S. have some form of a drug-related Good Samaritan Law (49); however, the specific protections offered vary between each state. For example, in many states, these laws do not provide legal protection for the possession of controlled substances, paraphernalia, or parole/probation violations (49), which limits their effectiveness as people who use drugs are fearful of arrest (50). Further, lack of knowledge about Good Samaritan Laws serves as barriers to their usefulness, as research shows that people who use drugs are often unaware that such laws exist (51).

Overdose prevention sites (safe consumption sites) are spaces to use pre-obtained drugs under the care of trained staff. These programs provide sanitary injection equipment and ensure proper disposal of used equipment to prevent the spread of infectious disease. While overdose prevention sites have been established in many countries, they do not legally exist in the U.S., save for in Rhode Island (52,53). On July 7, 2021, Rhode Island Governor Daniel J.

McKee signed legislation to create a two-year pilot program for these sites (53). While Rhode Island will be the first in the U.S. to operate these sites, states such as California and Massachusetts have attempted to enact similar legislation, only to see these efforts delayed or stalled. Opposition toward these sites rests on the fallacy that they promote rampant drug use; however, research has demonstrated the opposite—overdose prevention sites promote *safer* drug practices. Indeed, not one recorded fatal overdose has occurred within these sites (54). Rather, these programs are associated with increased utilization of treatment and social services (55) and reduced risk of fatal overdose (56,57) and infectious disease (58). Current overdose prevention sites in the U.S. operate “underground” (i.e., informally via social networks of harm reduction advocates). Research on one of these sites found they are unable to collaborate with other treatment agencies and expand their reach due to legal barriers which prohibit their operation (52).

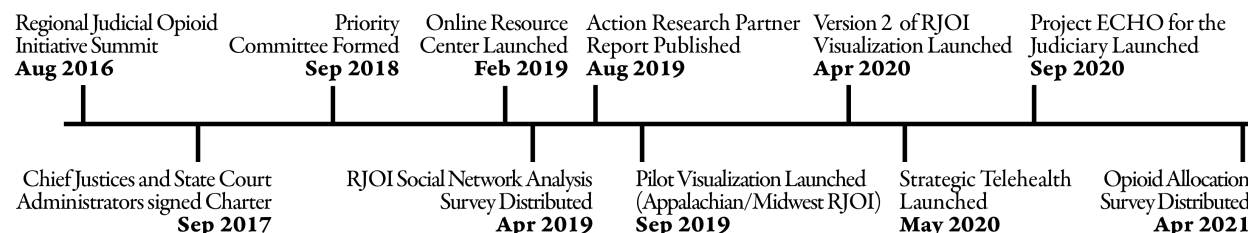
Finally, the Biden Administration recently approved the use of federal funds to purchase fentanyl testing strips (59), which can provide security of knowing if drugs have been combined with fentanyl. This is critical information as research indicates that much of the illicit drug market contains fentanyl (60). Testing strips work by mixing a portion of the substance with water, dipping the strip into this water-drug mixture, and waiting 15-seconds for the results. Unfortunately, many jurisdictions are facing hurdles implementing this lifesaving tool because it is considered “drug paraphernalia,” therein criminalizing the possession of fentanyl testing strips (61). Moreover, this take-home testing solution is far too limited; the U.S. needs to develop a more robust system for drug checking like other developed countries (Netherlands, Austria, Switzerland, Belgium, Spain, France, Portugal, and Wales) where citizens can safely and securely test drugs without fear of legal repercussion (62). For example, the U.K. recently implemented a successful pharmacist-led drug checking service through a community-based substance use organization (63). Drug checking services can provide valuable data on the drug market (64); help to generate a safer, less poisonous, drug supply; and have been shown to positively influence drug use behaviors (65).

**NOT ONE RECORDED FATAL OVERDOSE HAS OCCURRED WITHIN OVERDOSE PREVENTION SITES. THESE PROGRAMS ARE ASSOCIATED WITH INCREASED UTILIZATION OF TREATMENT AND SOCIAL SERVICES AND REDUCED RISK OF FATAL OVERDOSE AND INFECTIOUS DISEASE.**

# A ROADMAP FROM LESSONS LEARNED

As the end of a five-year collaboration with the RJOI draws near, the action research team was asked to identify next steps that build on lessons learned. To inform these steps, the action research team reflected on the Initiative’s accomplishments (see Figure 5) and held conversations with several members of the RJOI leadership. During these conversations, the RJOI leadership shared what knowledge they have now, in 2021, about overdose, and what they wish they could have told themselves when the RJOI first convened in 2016. The action research team asked its members the same questions. Considering the RJOI achievements thus far, what follows are lessons learned and broad recommendations to keep the RJOI stakeholders informed and engaged in addressing the overdose epidemic.

**Figure 5:** RJOI Timeline of Events



## Timely data on overdose requires local collaboration.

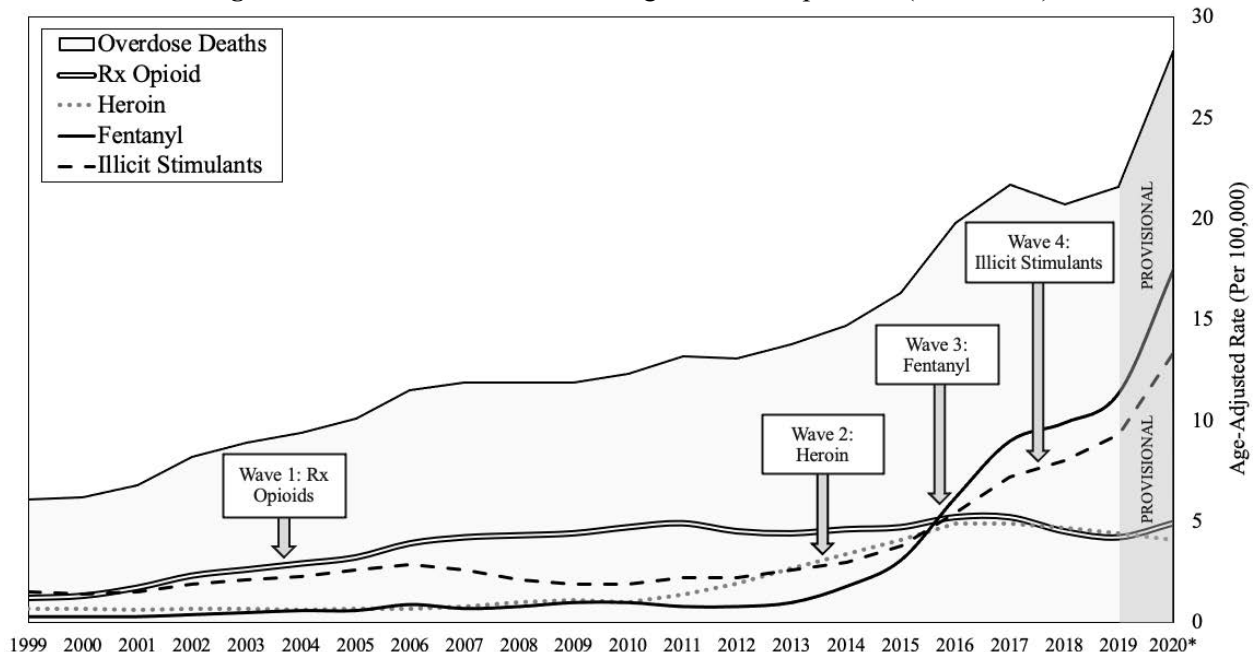
Online data dashboards are a relatively new and popular tool used to disseminate information to key stakeholders (66–68), and the RJOI was early to develop one. The action research team worked with agencies across each of the RJOI states to acquire county-level indicators from multiple sources, including criminal-legal, public health, treatment, and overdose mortality. The first RJOI data dashboard launched in the summer of 2019 and integrated multiple data sources together in one location to help stakeholders identify interstate hotspots. From this dashboard development experience, the action research team learned of the numerous differences in how county-level indicators were measured across state agencies. For example, states differed in terms of which criminal offenses are “drug-related,” with some states rejecting the categorization all together.

The action research team sought feedback from the RJOI leadership and dashboard users to develop a second iteration that launched the following year. To adjust for differences in operationalization, this iteration only integrated standardized national data sources (e.g., American Community Survey, Centers for Disease Control and Prevention [CDC] Agency for Toxic Substances and Disease Registry, CDC WONDER Database, Health Professional Shortage Areas,

National Drug Court Resource Center, Substance Abuse and Mental Health Services Administration, United States Census Bureau, United States Department of Agriculture). Additionally, because research has identified an increase in stimulant-related overdose deaths (69,70) and an undercounting of opioid-related overdoses (71), the second iteration allowed users to visualize underlying substances identified in the International Classifications of Diseases (ICD) codes (e.g., ICD Code T40.1 (heroin), T40.6 (fentanyl), or T40.5 (cocaine)).

The RJOI data dashboards have been accessed more than 2,000 times to date (this includes the map visualization and specific county-profile pages), for an average of more than 90 views per month. The action research team received overwhelming positive feedback from across the RJOI on the utility of the dashboard for decision-making and, in particular, for funding applications. However, the action research team was unable to improve the timeliness of overdose mortality data. As illustrated in Figure 6, overdose deaths have increased as the underlying substances involved in these fatalities changed from prescription opioids, to heroin, to fentanyl, and, most recently, to illicit stimulants (e.g., cocaine and methamphetamine). Considering how rapidly these patterns have changed in the U.S.—in substance, location, and demographics, as deaths among African Americans now outpace all other racialized groups in the U.S. (72–74)—the inability to access timely overdose data is a critical gap in prevention efforts.

**Figure 6:** National Waves of the Drug Overdose Epidemic (1999-2020)



Conversations with the RJOI leadership revealed that most stakeholders do not have access to timely, community-specific overdose data, as the most recently available national data (CDC WONDER Database) lags by nearly two years. In 2016, the CDC developed a new data reporting system, the State Unintentional Drug Overdose Reporting System (SUDORS), designed to collect

more timely and comprehensive data on fatal and nonfatal overdoses and their associated risk factors; however, it only operates in select states and there is no clear path for public release of the data (75). The research team does not yet have timely national overdose data to inform prevention strategies.

Medical examiners, coroners, and other death scene investigators play an important role in local overdose surveillance given their access to information gleaned at the scene of an overdose (76). The RJOI leadership who did have access to timely data had it from this source.

However, tracking and recording data to identify overdose trends is beyond the purview of death scene investigators, which has given rise to numerous public health surveillance strategies. One emerging strategy are overdose fatality review teams, which may include medical examiners/coroners, law enforcement, healthcare and social service providers, treatment providers, public health department officials, and emergency responders (77). The typical team has about 15-20 members and meets monthly to review community overdose trends and conduct select case reviews on an overdose decedent’s background to determine potential prevention strategies (78). Joining a fatality review team or similar public health surveillance collaboration is an ideal way for the RJOI stakeholders to stay connected with overdose in their communities and provide a venue where the leadership and lessons learned from this initiative can be put into action to inform the implementation of evidence-based overdose prevention strategies.

**“THERE’S A LOT OF  
POWER IN DATA.”**

– JUDGE KENWORTHY

### **Addressing stigma should be a priority.**

There is no way to reduce rising rates of overdose, the majority of which are opioid-related, without expanding access to medications for OUD. Figure 7 provides a brief outline of the three U.S. Food and Drug Administration-approved medications—methadone, buprenorphine, and extended-release naltrexone—along with information on use and effectiveness. The RJOI leadership is well aware of the scientific research and evidence base of these medications. Several describe themselves as “converts” after learning about, and especially after seeing, the effectiveness of these medications and are charismatic in delivering such information to their judicial colleagues.

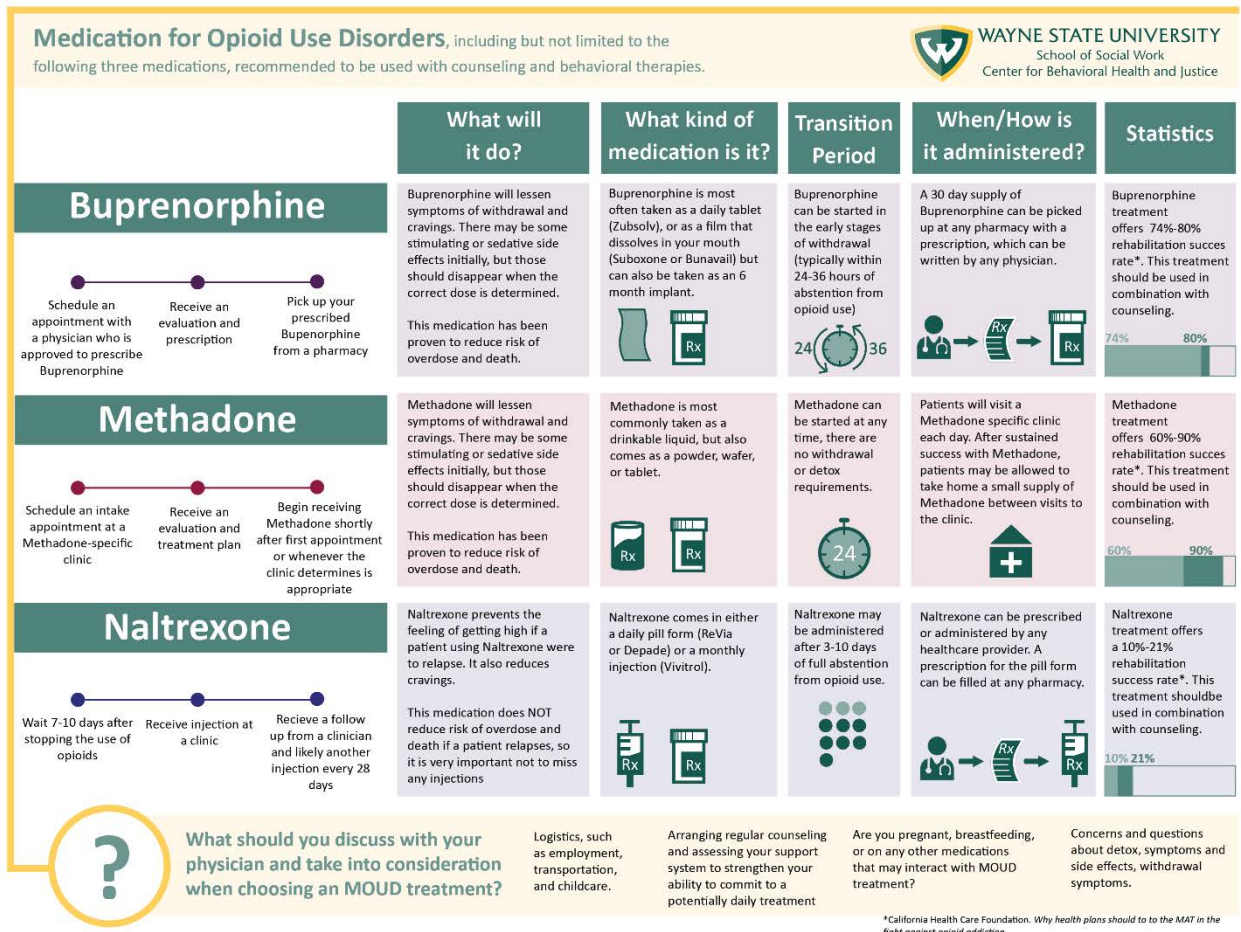
**“I AM VERY WELL-VERSED IN  
ALL OF THE MEDICATIONS,  
AND I DON’T HAVE ANY  
CONCERNS AT THIS POINT,  
OTHER THAN THAT WE NEED TO  
EDUCATE OTHER JUDGES ABOUT  
THEIR ACCEPTABILITY.”**

– JUDGE PRIVETT

As a component of the RJOI pilot programs, the NCSC developed a curriculum about OUD treatment effectiveness, which the RJOI leadership members helped to deliver and established local partnerships for training facilitation and support. Using county-level data from the RJOI dashboard described above, the action research team identified interstate hotspots of overdose



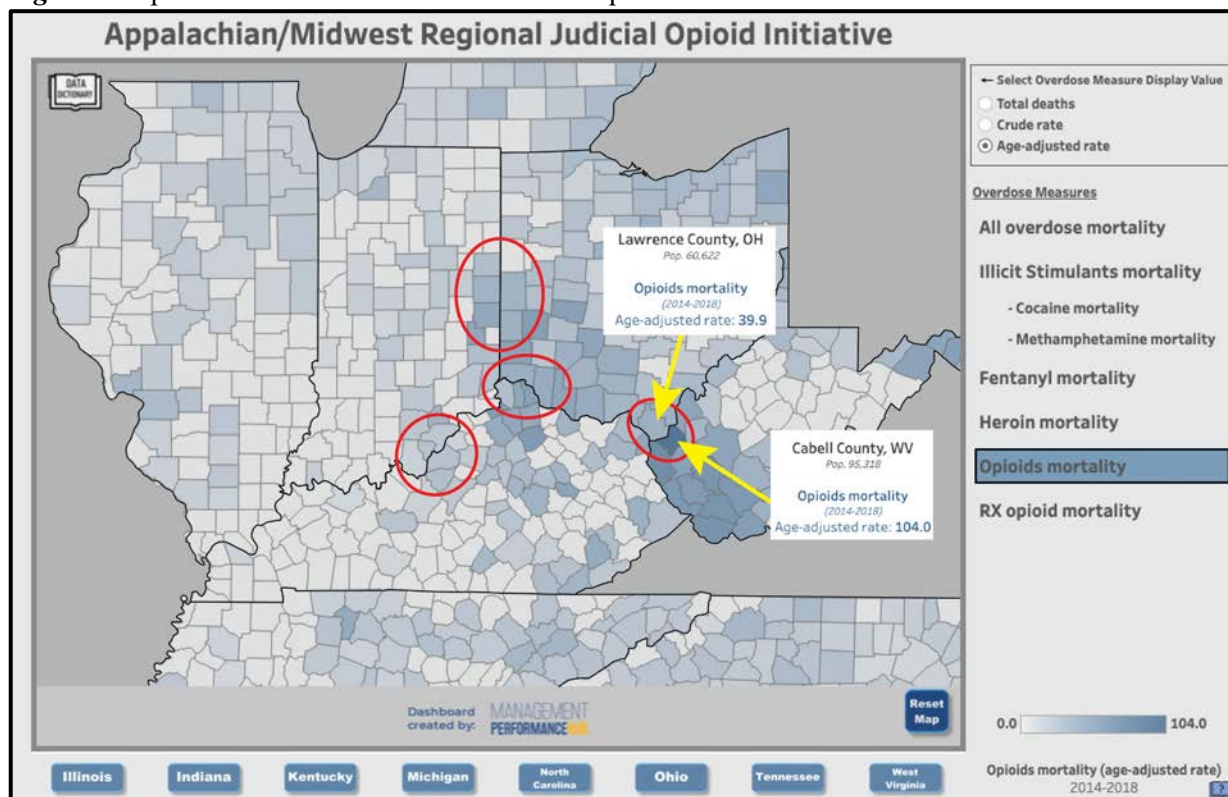
**Figure 7: Medications for Opioid Use Disorder**



deaths to target outreach for engagement in the OUD treatment pilot program. For example, Figure 8 illustrates the overlap in opioid-related overdose deaths between Lawrence County in Ohio and Cabell County in West Virginia. These counties in each respective state represent some of the highest rates of opioid-involved overdose deaths and happen to overlap state lines. Apart from the two counties listed, Figure 8 also shows overlap in high incidences of opioid overdose death between Indiana and Ohio, Ohio and Kentucky, and Indiana and Kentucky.

Given that many of the targeted counties were rural with limited access to addiction experts, the Extension for Community Healthcare Outcomes (ECHO), a virtual platform for training was selected. ECHO is a guided practice model comprised of a panel of experts who educate participants in a focused area of work. ECHO began in the medical field as a training tool for doctors. RJOI used this model to train on addiction and recovery. Training plans started prior to COVID-19, and because ECHO is virtual, this program was sustained throughout the pandemic. To date, 86 judges from eight states have attended the *first* OUD treatment ECHO for the courts, and preliminary results suggest statistically significant improvements in knowledge and attitudes toward those in recovery and the effectiveness of medications for OUD.

**Figure 8:** Opioid-Involved Overdose Death Overlap between States



Many RJOI stakeholders are now working with local ECHO teams to conduct trainings across other parts of the criminal-legal system (e.g., probation, child welfare). As they have engaged stakeholders from other agencies, and in encounters with colleagues on the bench, the RJOI leadership described the stigma against treatment and those in recovery. Stigmatization renders one as undesirably different, and like other sociocultural markers of difference, substance dependence is associated with social disapproval and discrimination (79). For people recovering from problematic drug use, this stigma is often multifaceted; and for those with OUD, stigma against medication is prevalent, even among the medical and service agencies where they receive the medication. For example, survey data from physicians who received the waiver necessary to prescribe buprenorphine but were still not doing so revealed disbelief in agonist therapy and fear of stigma from colleagues as the main reasons why physicians were reticent to prescribe buprenorphine (80). Similarly, a secret shopper study of OUD treatment facilities revealed many barriers associated with buprenorphine treatment access, especially among pregnant women (81). The stigma is even worse for persons of color, as several recent studies highlighted disparities in OUD treatment among African Americans (82–85). In addition to the limited

**“I SUPPORT MAT (MEDICATION ASSISTED TREATMENT) HARM REDUCTION STRATEGIES.”**

– JUDGE SHRIVER

opportunities and discrimination resulting from externalized sources of stigma, self-stigma can also prevent individuals from seeking and completing treatment as the compounding effects of multiple sources of stigma can limit recovery outcomes (87,88).

Stigma against those in OUD treatment ultimately derives from negative attitudes toward persons who use illicit drugs and is exacerbated by the criminalization of drug use. Implementing public health frameworks like harm reduction, which aims to meet people “where they are at” both mentally and physically, is sometimes difficult for those tasked with enforcing drug laws, as the criminal-legal system holds and reproduces different epistemes. However, this does not negate the potential for reducing harms through anti-stigma campaigns. The action research team encourages the RJOI stakeholders to explicitly consider anti-stigma efforts against those with substance use disorders, diagnosed or not, as part of their future educational outreach curriculum to their peers in the judiciary and across state and local government. Educational anti-stigma interventions can correct misinformation and contradict negative attitudes and beliefs (86). ECHO trainings demonstrated statistically significant improvements in knowledge and attitudes, including stigma, among the RJOI participants. Just as the RJOI stakeholders partnered with those in addiction medicine to inform colleagues about evidence-based OUD treatment, the action research team suggests partnering with local harm reduction agencies and persons with lived experience of substance use, relapse, and recovery to reduce stigma.

### **There are unintended consequences of disrupting the drug market.**

Some early RJOI efforts focused on prescription drug monitoring programs (PDMPs), electronic databases maintained by states that track prescription and dispensation of opioids and other controlled substances (89). A patient’s PDMP “report” is referenced by prescribers, pharmacists, and law enforcement officials in some states to investigate suspected misuse, diversion, and doctor shopping. Many states have mandated prescriber review of patient PDMP reports, and some states have integrated electronic health records into this practice, resulting in benefits for patient care. However, the rapid implementation of PDMPs, especially without adequate treatment provisions in the community, have had several unexpected outcomes. For example, studies from 2016 suggested that PDMPs reduced opioid prescribing, and some studies have linked this to reductions in overdose deaths (90–92). However, research also indicates that PDMPs might have contributed to persons who use drugs quickly transitioning to more dangerous substances (93–98). This unintended effect was also observed in a recent study on the rapid decline in opioid prescribing among veterans’ affairs and a possible link to increased suicide (99).

While additional research is needed to unravel the ongoing complex relationship between the regulated and unregulated drug supply, the broader lesson is that *disrupting the drug market can have unforeseen consequences*. From a supply side, [Beletsky & Davis](#) employed the “Iron Law of Prohibition” to illustrate how imposing barriers to the drug market creates pressure among

**“SOMETIMES YOU GET  
CAUGHT UP IN YOUR OWN  
COUNTY AND FORGET THAT  
THERE IS A BIGGER PICTURE  
WITH THE OPIOID EPIDEMIC  
AND HOW INTERCONNECTED  
EVERYTHING IS.”**

– JUDGE DOBRICH

individuals quickly develop a tolerance for the drug, requiring increasing amounts to create a feeling of euphoria and/or to stave off painful withdrawal symptoms. However, following a period of abstinence and withdrawal, tolerance is reduced, less is needed to produce the same euphoric effects, and a dose that was once non-lethal may now be lethal (100). Moreover, with an unregulated market, the dosage is impossible to measure, resulting in dangerous guesswork that places individuals at heightened risk of overdose (60). Thus, current drug policies may be inadvertently contributing to illegal drugs becoming more potent.

Recent studies suggest that drug seizures create unintended consequences (101–103). Drug seizures disrupt the drug market, prompting persons who have developed a chemical dependency to the seized substances to shift to alternative dealers or substitute substances, which increases the likelihood of overdose. The potential for drug enforcement strategies to inadvertently increase overdose is concerning and worthy of further inquiry. While there are trends to decriminalize cannabis and other substances, the overarching U.S. drug policy aims to diminish the size of the illicit drug market through law enforcement strategies. For more than 40 years, this policy has been practiced, demonstrating its ineffectiveness in reducing drug use or overdose deaths. To develop drug policies that are effective in reducing overdose, the RJOI stakeholders need to determine how to include those who have struggled with problematic drug use in policy design and implementation. This is currently happening in many states where health and service agencies meet with representatives from “drug users’ unions” to discuss programming, policy, and potential unintended consequences. RJOI stakeholders have the ability to create and protect opportunities for persons with lived experience to have a seat at the table to develop practical solutions to this public health crisis.

sellers to increase potency so they can minimize volume (and potential transportation risk) while maximizing profit (60). They point to Prohibition as an example, when interdiction efforts amplified potency, as alcohol products increased more than 150%, and suggest the same mechanisms are at play with illicitly produced fentanyl, a synthetic opioid 50 to 100 times more potent than morphine (60). From the demand side, drug market disruptions can leave persons who use illicit opioids particularly vulnerable to overdose. Indeed, these



# CLOSING THOUGHTS

---

As the allocation survey results demonstrate, many of the RJOI stakeholders' preferences for addressing the overdose epidemic agree with recommendations from national experts. However, where the RJOI stakeholders diverged with experts most was regarding resource allocation for harm reduction services. Harm reduction is predicated upon non-judgement and non-coercion (104). By not demanding or assuming an abstinence-only pathway to recovery, harm reduction meets people where they are in their substance use journey, creating multiple pathways to recovery, thereby making healthier and safer futures possible for people who continue to use substances. The action research team recognizes that courts, which are at the heart of the RJOI, are not ideally situated to provide harm reduction services; therefore, the action research team highlighted the importance of harm reduction with a treatment ecosystem approach providing feasible recommendations that all RJOI stakeholders might consider and that judges can champion at a local level. These recommendations include *participation in local overdose surveillance efforts, anti-stigma education via peer networks, and ensuring there are opportunities for persons with lived experience with illicit drug use, relapse, and recovery to inform drug policy.*

These recommendations come as overdose deaths continue to rise and will simultaneously require new collaborations and the continued innovation and evaluation of new policies and strategies while also expanding evidence-based practices. The importance of harm reduction was also recently highlighted by the Center for Court Innovation, that created a [harm reduction guide for drug courts practitioners](#), including recommendations for treatment, sentencing, and calls for drug courts to abolish the use of jail time in sanctioning. This call to consider harm reduction practices comes because of the potential to prevent overdose deaths, and the RJOI stakeholders have the unique ability to endorse practices that move people toward a safer lifestyle.

The stakeholders and leaders who have propelled the RJOI over the past five years will certainly have new recommendations five years from now, as a fundamental quality shared among this group is the pursuit of evidence-based knowledge. However, stakeholders must keep in mind who evidence-based knowledge is meant to serve, not sociocultural constructs of what comprises recovery, but the nuanced and multifaceted lived realities of persons who struggle with drug dependence and of those in recovery who should be afforded the same support, dignity, and respect as anyone struggling with a difficult health issue. The RJOI stakeholders have demonstrated the courage and commitment to their community to help elevate the voices of this population.



# REFERENCES

---

1. Centers for Disease Control and Prevention. Vital Statistics Rapid Release - Provisional Drug Overdose Data [Internet]. 2021 [cited 2021 Aug 6]. Available from: <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>
2. Katz J. How a Police Chief, a Governor and a Sociologist Would Spend \$100 Billion to Solve the Opioid Crisis. *The New York Times* [Internet]. 2018 Feb 14 [cited 2020 Aug 26]; Available from: <https://www.nytimes.com/interactive/2018/02/14/upshot/opioid-crisis-solutions.html>, <https://www.nytimes.com/interactive/2018/02/14/upshot/opioid-crisis-solutions.html>
3. Wakeman SE, Larochelle MR, Ameli O, Chaisson CE, McPheeters JT, Crown WH, et al. Comparative Effectiveness of Different Treatment Pathways for Opioid Use Disorder | Psychiatry and Behavioral Health | JAMA Network Open | JAMA Network. *Jama Netw Open* [Internet]. 2020 [cited 2021 Jul 20];3(2). Available from: <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2760032>
4. Degenhardt L, Bucello C, Mathers B, Briegleb C, Ali H, Hickman M, et al. Mortality among regular or dependent users of heroin and other opioids: a systematic review and meta-analysis of cohort studies. *Addiction*. 2011;106(1):32–51.
5. Degenhardt L, Larney S, Kimber J, Gisev N, Farrell M, Dobbins T, et al. The impact of opioid substitution therapy on mortality post-release from prison: retrospective data linkage study. *Addiction*. 2014;109(8):1306–17.
6. Dolan KA, Shearer J, MacDonald M, Mattick RP, Hall W, Wodak AD. A randomised controlled trial of methadone maintenance treatment versus wait list control in an Australian prison system. *Drug Alcohol Depend*. 2003 Oct 24;72(1):59–65.
7. Mattick R, Kimber J, Breen C, Davoli M. Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. In: The Cochrane Collaboration, editor. *Cochrane Database of Systematic Reviews* [Internet]. Chichester, UK: John Wiley & Sons, Ltd; 2003 [cited 2019 Apr 17]. Available from: <http://doi.wiley.com/10.1002/14651858.CD002207.pub2>
8. Mattick RP, Breen C, Kimber J, Davoli M. Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. Cochrane Drugs and Alcohol Group, editor. *Cochrane Database Syst Rev* [Internet]. 2009 Jul 8 [cited 2019 Apr 17]; Available from: <http://doi.wiley.com/10.1002/14651858.CD002209.pub2>
9. Larochelle MR, Bernson D, Land T, Stopka TJ, Wang N, Xuan Z, et al. Medication for Opioid Use Disorder After Nonfatal Opioid Overdose and Association With Mortality: A Cohort Study. *Ann Intern Med*. 2018 Aug 7;169(3):137.
10. Thomas CP, Fullerton CA, Kim M, Montejano L, Lyman DR, Dougherty RH, et al. Medication-Assisted Treatment With Buprenorphine: Assessing the Evidence. *Psychiatr Serv*. 2014 Feb;65(2):158–70.
11. Connery HS. Medication-Assisted Treatment of Opioid Use Disorder: Review of the Evidence and Future Directions. *Harv Rev Psychiatry*. 2015 Apr;23(2):63.
12. Connock M, Juarez-Garcia A, Jowett S, Frew E, Liu Z, Taylor R, et al. Methadone and buprenorphine for the management of opioid dependence: a systematic review and economic evaluation. *Health Technol Assess*. 2007;11(9):1–171.
13. Fullerton CA, Kim M, Thomas CP, Lyman DR, Montejano LB, Dougherty RH, et al. Medication-Assisted Treatment With Methadone: Assessing the Evidence. *Psychiatr Serv*. 2014 Feb;65(2):146–57.
14. Wen H, Hockenberry JM, Borders TF, Druss BG. Impact of Medicaid Expansion on Medicaid-covered Utilization of Buprenorphine for Opioid Use Disorder Treatment. *Med Care*. 2017 Apr;55(4):336–41.

15. Maclean JC, Saloner B. The Effect of Public Insurance Expansions on Substance Use Disorder Treatment: Evidence from the Affordable Care Act [Internet]. National Bureau of Economic Research; 2017 Apr [cited 2021 Aug 3]. (Working Paper Series). Report No.: 23342. Available from: <https://www.nber.org/papers/w23342>
16. Clemans-Cope L, Lynch V, Winiski E, Epstein M. State Variation in Medicaid Prescriptions for Opioid Use Disorder from 2011 to 2018 [Internet]. Urban Institute. 2019 [cited 2021 Aug 3]. Available from: <https://www.urban.org/research/publication/state-variation-medicaid-prescriptions-opioid-use-disorder-2011-2018>
17. Green TC, Clarke J, Brinkley-Rubinstein L, Marshall BDL, Alexander-Scott N, Boss R, et al. Postincarceration Fatal Overdoses After Implementing Medications for Addiction Treatment in a Statewide Correctional System. *JAMA Psychiatry*. 2018 Apr 1;75(4):405.
18. Wodak A, Cooney A, World Health Organization. Effectiveness of sterile needle and syringe programming in reducing HIV/AIDS among injecting drug users. Geneva: World Health Organization; 2004.
19. Aspinall EJ, Nambiar D, Goldberg DJ, Hickman M, Weir A, Van Velzen E, et al. Are needle and syringe programmes associated with a reduction in HIV transmission among people who inject drugs: a systematic review and meta-analysis. *Int J Epidemiol*. 2014 Feb;43(1):235–48.
20. Fernandes RM, Cary M, Duarte G, Jesus G, Alarcão J, Torre C, et al. Effectiveness of needle and syringe Programmes in people who inject drugs – An overview of systematic reviews. *BMC Public Health*. 2017 Apr 11;17(1):309.
21. Hurley SF, Jolley DJ, Kaldor JM. Effectiveness of needle-exchange programmes for prevention of HIV infection. *Lancet Lond Engl*. 1997 Jun 21;349(9068):1797–800.
22. Platt L, Minozzi S, Reed J, Vickerman P, Hagan H, French C, et al. Needle syringe programmes and opioid substitution therapy for preventing hepatitis C transmission in people who inject drugs. *Cochrane Database Syst Rev*. 2017 Sep 18;9:CD012021.
23. Strathdee SA, Vlahov D. The effectiveness of needle exchange programs: A review of the science and policy. *AIDS Science*. 2001;1(6):31.
24. Des Jarlais DC, Friedman SR, Friedmann P, Wenston J, Sotheran JL, Choopanya K, et al. HIV/AIDS-related behavior change among injecting drug users in different national settings. *AIDS Lond Engl*. 1995 Jun 1;9(6):611–7.
25. Donoghoe MC, Stimson GV, Dolan K, Alldritt L. Changes in HIV risk behaviour in clients of syringe-exchange schemes in England and Scotland. *AIDS Lond Engl*. 1989 May 1;3(5):267–72.
26. Vlahov D, Junge B, Brookmeyer R, Cohn S, Riley E, Armenian H, et al. Reductions in High-Risk Drug Use Behaviors Among Participants in the Baltimore Needle Exchange Program. *J Acquir Immune Defic Syndr*. 16(5):400–6.
27. Hagan H, Thiede H. Changes in injection risk behavior associated with participation in the seattle needle-exchange program. *J Urban Health*. 2000 Sep;77(3):369–82.
28. Huo D, Ouellet LJ. Needle Exchange and Injection-Related Risk Behaviors in Chicago: A Longitudinal Study. *JAIDS J Acquir Immune Defic Syndr*. 2007 May 1;45(1):108–14.
29. Hagan H, McGough JP, Thiede H, Hopkins S, Duchin J, Alexander ER. Reduced injection frequency and increased entry and retention in drug treatment associated with needle-exchange participation in Seattle drug injectors. *J Subst Abuse Treat*. 2000 Oct;19(3):247–52.
30. Watters JK, Estilo MJ, Clark GL, Lorvick J. Syringe and needle exchange as HIV/AIDS prevention for injection drug users. *JAMA*. 1994 Jan 12;271(2):115–20.
31. Hartgers C, van Ameijden EJ, van den Hoek JA, Coutinho RA. Needle sharing and participation in the Amsterdam Syringe Exchange program among HIV-seronegative injecting drug users. *Public Health Rep*. 1992;107(6):675–81.
32. Barnett ML, Barry C, Beetham T, Carnevale T, Feinstein E, Frank RG, et al. Evidence Based Strategies for Abatement of Harms from the Opioid Epidemic [Internet]. Available from: <file:///Users/katiebailey/Downloads/TheOpioidEbatement-v3.pdf>

33. Hart C. *Drug Use for Grown-Ups: Chasing Liberty in the Land of Fear*. Penguin Press; 2021. 304 p.
34. McDonald R, Strang J. Are take-home naloxone programmes effective? Systematic review utilizing application of the Bradford Hill criteria. *Addict Abingdon Engl*. 2016;111(7):1177–87.
35. Chimbar L, Moleta Y. Naloxone Effectiveness: A Systematic Review. *J Addict Nurs*. 2018 Sep;29(3):167–71.
36. Abouk R, Pacula RL, Powell D. Association Between State Laws Facilitating Pharmacy Distribution of Naloxone and Risk of Fatal Overdose. *JAMA Intern Med*. 2019 Jun 1;179(6):805–11.
37. Clark AK, Wilder CM, Winstanley EL. A Systematic Review of Community Opioid Overdose Prevention and Naloxone Distribution Programs. *J Addict Med*. 2014 Jun;8(3):153–63.
38. Walley AY, Xuan Z, Hackman HH, Quinn E, Doe-Simkins M, Sorensen-Alawad A, et al. Opioid overdose rates and implementation of overdose education and nasal naloxone distribution in Massachusetts: interrupted time series analysis. *BMJ [Internet]*. 2013 Jan 31 [cited 2020 May 6];346. Available from: <https://www.bmj.com/content/346/bmj.f174>
39. Spivey CA, Wilder A, Chisholm-Burns MA, Stallworth S, Wheeler J. Evaluation of naloxone access, pricing, and barriers to dispensing in Tennessee retail community pharmacies. *J Am Pharm Assoc*. 2020 Sep 1;60(5):694-701.e1.
40. Winstanley EL, Clark A, Feinberg J, Wilder CM. Barriers to Implementation of Opioid Overdose Prevention Programs in Ohio. *Subst Abuse*. 2016;37(1):42–6.
41. Spivey CA, Wilder A, Chisholm-Burns MA, Stallworth S, Wheeler J. Evaluation of naloxone access, pricing, and barriers to dispensing in Tennessee retail community pharmacies. *J Am Pharm Assoc JAPhA*. 2020 Oct;60(5):694-701.e1.
42. Godvin M. The US Faces a Naloxone Shortage at the Worst Possible Time [Internet]. *Filter*. 2021 [cited 2021 Aug 4]. Available from: <https://filtermag.org/us-naloxone-shortage/>
43. Winograd RP, Presnall N, Stringfellow E, Wood C, Horn P, Duello A, et al. The case for a medication first approach to the treatment of opioid use disorder. *Am J Drug Alcohol Abuse*. 2019 Jul 4;45(4):333–40.
44. Jakubowski A, Fox A. Defining low-threshold buprenorphine treatment. *J Addict Med*. 2020;14(2):95–8.
45. Krawczyk N, Buresh M, Gordon MS, Blue TR, Fingerhood MI, Agus D. Expanding low-threshold buprenorphine to justice-involved individuals through mobile treatment: Addressing a critical care gap. *J Subst Abuse Treat*. 2019 Aug;103:1–8.
46. Bhatraju EP, Grossman E, Tofighi B, McNeely J, DiRocco D, Flannery M, et al. Public sector low threshold office-based buprenorphine treatment: outcomes at year 7. *Addict Sci Clin Pract*. 2017;12:7.
47. McClellan C, Lambdin BH, Ali MM, Mutter R, Davis CS, Wheeler E, et al. Opioid-overdose laws association with opioid use and overdose mortality. *Addict Behav*. 2018 Nov;86:90–5.
48. Hamilton L, Davis CS, Kravitz-Wirtz N, Ponicki W, Cerdá M. Good Samaritan laws and overdose mortality in the United States in the fentanyl era. *Int J Drug Policy*. 2021 Nov 1;97:103294.
49. Prescription Drug Abuse Policy System. Good Samaritan Overdose Prevention Laws [Internet]. 2021 [cited 2019 Dec 2]. Available from: <https://pdaps.org/datasets/good-samaritan-overdose-laws-1501695153>
50. Watson DP, Ray B, Robison L, Huynh P, Sights E, Walker LS, et al. Lay responder naloxone access and Good Samaritan law compliance: postcard survey results from 20 Indiana counties. *Harm Reduct J*. 2018 Apr 6;15(1):18.
51. Moallem S, Hayashi K. The effectiveness of drug-related Good Samaritan laws: A review of the literature. *Int J Drug Policy*. 2021 Apr 1;90:102773.
52. Davidson PJ, Lopez AM, Kral AH. Using drugs in un/safe spaces: Impact of perceived illegality on an underground supervised injecting facility in the United States. *Int J Drug Policy*. 2018 Mar 1;53:37–44.

53. Fitzpatrick E, July 14 U, 2021, Comments6 6:20 p m Share on Facebook Share on TwitterView. Here's what a safe injection site would look like - The Boston Globe [Internet]. BostonGlobe.com. [cited 2021 Aug 12]. Available from: <https://www.bostonglobe.com/2021/07/14/metro/heres-what-safe-injection-site-would-look-like-rhode-island/>
54. Caulkins JP, Pardo B, Kilmer B. Supervised consumption sites: a nuanced assessment of the causal evidence. *Addiction*. 2019;114(12):2109–15.
55. Wood E, Tyndall MW, Zhang R, Montaner JSG, Kerr T. Rate of detoxification service use and its impact among a cohort of supervised injecting facility users. *Addict Abingdon Engl*. 2007 Jun;102(6):916–9.
56. Milloy M-JS, Kerr T, Tyndall M, Montaner J, Wood E. Estimated Drug Overdose Deaths Averted by North America's First Medically-Supervised Safer Injection Facility. *PLOS ONE*. 2008 Oct 7;3(10):e3351.
57. Marshall BDL, Milloy M-J, Wood E, Montaner JSG, Kerr T. Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *Lancet Lond Engl*. 2011 Apr 23;377(9775):1429–37.
58. Salmon AM, van Beek I, Amin J, Grulich A, Maher L. High HIV testing and low HIV prevalence among injecting drug users attending the Sydney Medically Supervised Injecting Centre. *Aust N Z Journal Public Health* [Internet]. 2009 [cited 2021 Aug 4];33(3). Available from: <https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1753-6405.2009.00389.x>
59. Federal Grantees May Now Use Funds to Purchase Fentanyl Test Strips | SAMHSA [Internet]. [cited 2021 Jul 23]. Available from: <https://www.samhsa.gov/newsroom/press-announcements/202104070200>
60. Beletsky L, Davis CS. Today's fentanyl crisis: Prohibition's Iron Law, revisited. *Int J Drug Policy*. 2017 Aug 1;46:156–9.
61. Carr D, Samuels E. Fentanyl Test Strips [Internet]. Legislative Analysis and Public Policy Association; 2021 p. 6. Available from: <https://www.nmhealth.org/publication/view/general/6756/>
62. Brunt T. Drug checking as a harm reduction tool for recreational drug users: opportunities and challenges [Internet]. European Monitoring Centre for Drugs and Drug Addiction; 2017. Available from: [https://www.emcdda.europa.eu/system/files/attachments/6339/EuropeanResponsesGuide2017\\_BackgroundPaper-Drug-checking-harm-reduction\\_0.pdf](https://www.emcdda.europa.eu/system/files/attachments/6339/EuropeanResponsesGuide2017_BackgroundPaper-Drug-checking-harm-reduction_0.pdf)
63. Guirguis A, Gittins R, Schifano F. Piloting the UK's First Home-Office-Licensed Pharmacist-Led Drug Checking Service at a Community Substance Misuse Service. *Behav Sci*. 2020 Aug;10(8):121.
64. Hungerbuehler I, Buecheli A, Schaub M. Drug Checking: A prevention measure for a heterogeneous group with high consumption frequency and polydrug use - evaluation of zurich's drug checking services. *Harm Reduct J*. 2011 Jun 10;8(1):16.
65. Measham F. City checking: Piloting the UK's first community-based drug safety testing (drug checking) service in 2 city centres. *Br J Clin Pharmacol*. 2020;86(3):420–8.
66. Goldstick J, Ballesteros A, Flannagan C, Roche J, Schmidt C, Cunningham RM. Michigan system for opioid overdose surveillance. *Inj Prev* [Internet]. 2021 Jan 4 [cited 2021 Jul 26]; Available from: <https://injuryprevention.bmj.com/content/early/2021/01/03/injuryprev-2020-043882>
67. Marshall BDL, Yedinak JL, Goyer J, Green TC, Koziol JA, Alexander-Scott N. Development of a Statewide, Publicly Accessible Drug Overdose Surveillance and Information System. *Am J Public Health*. 2017 Nov;107(11):1760–3.
68. Wood C. New Jersey launches data dashboard to share information on opioid addiction [Internet]. StateScoop. 2019 [cited 2021 Jul 26]. Available from: <https://statescoop.com/new-jersey-launches-data-dashboard-to-share-information-on-opioid-addiction/>
69. Ciccarone D. The rise of illicit fentanyls, stimulants and the fourth wave of the opioid overdose crisis. *Curr Opin Psychiatry*. 2021 Jul;34(4):344–50.

70. Hainer R. Polysubstance Use: A Dangerous Fourth Wave in the Opioid Crisis [Internet]. Boston Medical Center. 2019 [cited 2020 Apr 1]. Available from: <https://www.bmc.org/healthcity/population-health/polysubstance-use-dangerous-fourth-wave-opioid-crisis>
71. Lowder EM, Ray B, Huynh P, Ballew A, Watson DP. Identifying unreported opioid deaths through toxicology data and vital records linkage: Case study in Marion County, Indiana, 2011–2016. *Am J Public Health*. 2018 Oct 25;108(12):1682–7.
72. Phalen P, Ray B, Watson DP, Huynh P, Greene MS. Fentanyl related overdose in Indianapolis: Estimating trends using multilevel Bayesian models. *Addict Behav*. 2018 Nov;86:4–10.
73. Alexander MJ, Kiang MV, Barbieri M. Trends in Black and White Opioid Mortality in the United States, 1979–2015. *Epidemiol Camb Mass*. 2018 Sep;29(5):707–15.
74. Shiels MS, Freedman ND, Thomas D, de Gonzalez AB. Trends in US drug overdose deaths in non-Hispanic black, Hispanic, and non-Hispanic white persons, 2000–2015. *Ann Intern Med*. 2018;168(6):453–5.
75. Centers for Disease Control & Prevention. Enhanced State Opioid Overdose Surveillance [Internet]. Opioid Overdose. 2019 [cited 2019 Nov 5]. Available from: <https://www.cdc.gov/drugoverdose/foa/state-opioid-mm.html>
76. Williams KE, Freeman MD, Mirigian L. Drug Overdose Surveillance and Information Sharing via a Public Database: The Role of the Medical Examiner/Coroner. *Acad Forensic Pathol*. 2017 Mar;7(1):60–72.
77. Robinson A, Christensen A, Bacon S. From the CDC: The Prevention for States program: preventing opioid overdose through evidence-based intervention and innovation. *J Safety Res*. 2019;68:231–7.
78. Haas E, Truong C, Bartolomei-Hill L, Baier M, Bazron B, Rebbert-Franklin K. Local overdose fatality review team recommendations for overdose death prevention. *Health Promot Pract*. 2018;1524839918797617.
79. Goffman E. *Stigma: notes on the management of spoiled identity*. 1st Touchstone ed. New York: Simon & Schuster; 1986. 147 p.
80. Huhn AS, Dunn KE. Why aren't physicians prescribing more buprenorphine? *J Subst Abuse Treat*. 2017 Jul 1;78:1–7.
81. Patrick SW, Richards MR, Dupont WD, McNeer E, Buntin MB, Martin PR, et al. Association of Pregnancy and Insurance Status With Treatment Access for Opioid Use Disorder. *JAMA Netw Open*. 2020 Aug 14;3(8):e2013456.
82. Wu L-T, Zhu H, Swartz MS. Treatment utilization among persons with opioid use disorder in the United States. *Drug Alcohol Depend*. 2016 Dec 1;169:117–27.
83. Saloner B, Cook BL. Blacks And Hispanics Are Less Likely Than Whites To Complete Addiction Treatment, Largely Due To Socioeconomic Factors. *Health Aff (Millwood)*. 2013 Jan 1;32(1):135–45.
84. Kilaru AS, Xiong A, Lowenstein M, Meisel ZF, Perrone J, Khatri U, et al. Incidence of Treatment for Opioid Use Disorder Following Nonfatal Overdose in Commercially Insured Patients. *JAMA Netw Open*. 2020 May 27;3(5):e205852–e205852.
85. Goedel WC, Shapiro A, Cerdá M, Tsai JW, Hadland SE, Marshall BDL. Association of Racial/Ethnic Segregation With Treatment Capacity for Opioid Use Disorder in Counties in the United States. *JAMA Netw Open*. 2020 Apr 22;3(4):e203711–e203711.
86. Norms C on the S of CBHS, Board on Behavioral C, Education D of B and SS and, National Academies of Sciences E. *Approaches to Reducing Stigma*. In: *Ending Discrimination Against People with Mental and Substance Use Disorders: The Evidence for Stigma Change* [Internet]. National Academies Press (US); 2016 [cited 2021 Aug 3]. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK384914/>
87. Matthews S, Dwyer R, Snoek A. Stigma and Self-Stigma in Addiction. *J Bioethical Inq*. 2017 Jun 1;14(2):275–86.



88. Hammarlund R, Crapanzano K, Luce L, Mulligan L, Ward K. Review of the effects of self-stigma and perceived social stigma on the treatment-seeking decisions of individuals with drug- and alcohol-use disorders. *Subst Abuse Rehabil*. 2018 Nov 23;9:115–36.
89. Centers for Disease Control & Prevention. Prescription Drug Monitoring Programs (PDMPs) [Internet]. 2021 [cited 2021 Jul 14]. Available from: <https://www.cdc.gov/drugoverdose/pdmp/index.html>
90. Pauly NJ, Slavova S, Delcher C, Freeman PR, Talbert J. Features of prescription drug monitoring programs associated with reduced rates of prescription opioid-related poisonings. *Drug Alcohol Depend*. 2018 Mar 1;184:26–32.
91. Meinhofer A. Prescription Drug Monitoring Programs: The Role of Asymmetric Information on Drug Availability and Abuse. *Am J Health Econ*. 2018 Nov 1;4(4):504–26.
92. Patrick SW, Fry CE, Jones TF, Buntin MB. Implementation Of Prescription Drug Monitoring Programs Associated With Reductions In Opioid-Related Death Rates. *Health Aff (Millwood)*. 2016 Jul 1;35(7):1324–32.
93. Baldwin GT, Seth P, Noonan R. Continued Increases in Overdose Deaths Related to Synthetic Opioids: Implications for clinical Practice. *JAMA*. 2021 Feb;325(12):1151–2.
94. Brown R, Riley MR, Ulrich L, Kraly EP, Jenkins P, Krupa NL, et al. Impact of New York prescription drug monitoring program, I-STOP, on statewide overdose morbidity. *Drug Alcohol Depend*. 2017 Sep 1;178:348–54.
95. Paulozzi LJ, Kilbourne EM, Desai HA. Prescription Drug Monitoring Programs and Death Rates from Drug Overdose. *Pain Med*. 2011 May 1;12(5):747–54.
96. Phillips E, Gazmararian J. Implications of prescription drug monitoring and medical cannabis legislation on opioid overdose mortality. *J Opioid Manag*. 2017 Jul 1;13(4):229–39.
97. Meadowcroft D, Whitacre B. Do prescription drug monitoring programs encourage prescription - or illicit - opioid abuse? *Subst Abuse*. 2021;42(1):65–75.
98. Szalavitz M. *Undoing Drugs: The Untold Story of Harm Reduction and the Future of Addiction*. Hachette Books; 2021. 252 p.
99. Perspective | A program tried to cut opioid addiction among veterans. Did it cause suicides? *Washington Post* [Internet]. [cited 2021 Aug 24]; Available from: <https://www.washingtonpost.com/outlook/2021/08/24/opioids-veterans-suicides-interventions-safety/>
100. Strang J, McCambridge J, Best D, Beswick T, Bearn J, Rees S, et al. Loss of tolerance and overdose mortality after inpatient opiate detoxification: follow up study. *BMJ*. 2003 May 3;326(7396):959–60.
101. Mohler G, Mishra S, Ray B, Magee L, Huynh P, Canada M, et al. A modified two-process Knox test for investigating the relationship between law enforcement opioid seizures and overdoses. *Proc R Soc Math Phys Eng Sci*. 2021 Jun 30;477(2250):20210195.
102. Zibbell JE, Aldridge AP, Cauchon D, DeFiore-Hyrmer J, Conway KP. Association of Law Enforcement Seizures of Heroin, Fentanyl, and Carfentanil With Opioid Overdose Deaths in Ohio, 2014–2017. *JAMA Netw Open*. 2019 Nov 1;2(11):e1914666–e1914666.
103. Carroll JJ, Rich JD, Green TC. The protective effect of trusted dealers against opioid overdose in the U.S. *Int J Drug Policy*. 2020 Apr 1;78:102695.
104. Harm Reduction Principles [Internet]. National Harm Reduction Coalition. [cited 2021 Aug 23]. Available from: <https://harmreduction.org/about-us/principles-of-harm-reduction/>



WAYNE STATE  
School of Social Work  
Center for Behavioral Health and Justice